



U.S. Department
of Transportation

Research and
Special Programs
Administration

400 Seventh Street, S.W.
Washington, D.C. 20590

OCT 26 2004

DOT-E 7413
(FOURTEENTH REVISION)

EXPIRATION DATE: January 31, 2006

(FOR RENEWAL, SEE 49 CFR § 107.109)

1. GRANTEE: Worthington Cylinder Corporation
Columbus, OH
2. PURPOSE AND LIMITATIONS:
 - a. This exemption authorizes the manufacture, mark, sale and use of a non-DOT specification cylinder conforming with all regulations applicable to a DOT specification 3E cylinder, except as specified herein, for the transportation in commerce of the materials authorized by this exemption. This exemption provides no relief from the Hazardous Materials Regulations (HMR) other than as specifically stated herein.
 - b. The safety analyses performed in development of this exemption only considered the hazards and risks associated with transportation in commerce. The safety analyses did not consider the hazards and risks associated with consumer use, use as a component of a transport vehicle or other device, or other uses not associated with transportation in commerce.
3. REGULATORY SYSTEM AFFECTED: 49 CFR Parts 106, 107 and 171-180.
4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR §§ 173.304(a)(1), 175.3, and 173.302(a) in that a non-DOT specification cylinder is not authorized for the materials in paragraph 6, except as specified herein.
5. BASIS: This exemption is based on the application of Chilton Products Western Industries, Inc. dated December 22, 2003, submitted in accordance with § 107.109.

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6. HAZARDOUS MATERIALS (49 CFR § 172.101):

Hazardous Material Description			
Proper Shipping Name	Hazard Class/ Division	Identification Number	Packing Group
Air, compressed	2.2	UN1002	N/A
Carbon dioxide	2.2	UN1013	N/A
Nitrogen, compressed	2.2	UN1066	N/A

7. SAFETY CONTROL MEASURES:

a. PACKAGING - The packagings prescribed are non-DOT specification brazed cylinders built in accordance with Chilton assembly drawings 51320-53 Rev. B (dated 9-14-83) and 51200-23 Rev O (dated 9-12-83), on file with the office of Hazardous Materials Exemptions and Approvals (OHMEA). The construction must comply with DOT Specification 3E (§§ 178.35 and 178.42) except as follows:

§ 178.42(a) Type size and service pressure.

Cylinder is of brazed construction and must have an inside diameter not greater than 1.87 inches and a minimum sidewall thickness of .065 inch. The length of the cylinder must be less than 2 feet with a service pressure of 1,800 pounds per square inch. Volume is not to exceed 30 cubic inches water capacity. The cylinder body must be constructed from seamless steel tubing. Steel end caps attached by furnace brazing must have an interference fit.

§ 178.42(d) Manufacture.

Add - Furnace brazing temperature must be approximately 2,000°F followed by slow cool down. Brazing is authorized only for attaching end caps to tubular body and valve housing to one end cap.

§ 178.42 (f) Hydrostatic test.

(1) One cylinder out of each lot of 500 cylinders or less must be subjected to a hydrostatic pressure of at least 7,200 psi.

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(2) The cylinder referred to in paragraph (f)(1) of this section must hold a pressure of 12,000 psi for 30 seconds without bursting.

(i) A cylinder bursting between 7200 psi and 12,000 psi must not fragment or show lack of ductility.

(ii) A cylinder holding 12,000 psi pressure must be subjected to a flattening test without cracking to six times wall thickness between knife edges, wedge shaped 60 degree rounded out to 1/2 inch radius.

(3) * * *

b. MARKINGS - Marking must be in accordance with the requirements under § 178.35 (f) except "DOT-E 7413" must replace "DOT 3E".

8. SPECIAL PROVISIONS:

a. In accordance with the provisions of Paragraph (b) of § 173.22a, persons may use the packaging authorized by this exemption for the transportation of the hazardous materials specified in paragraph 6, only in conformance with the terms of this exemption.

b. A person who is not a holder of this exemption, but receives a package covered by this exemption, may reoffer it for transportation provided no modification or change is made to the package or its contents and it is offered for transportation in conformance with this exemption and the HMR.

c. A current copy of this exemption must be maintained at each facility where the package is offered or reoffered for transportation.

d. Each packaging manufactured under the authority of this exemption must be either (1) marked with the name of the manufacturer and location (city and state) of the facility at which it is manufactured or (2) marked with a registration symbol designated by the Office of Hazardous Materials Exemptions and Approvals for a specific manufacturing facility.

e. A current copy of this exemption must be maintained at each facility where the package is manufactured under this exemption. It must be made available to a DOT representative upon request.

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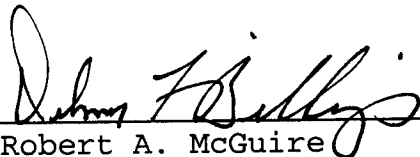
- f. Periodic requalification in accordance with § 180.209 is not required.
9. MODES OF TRANSPORTATION AUTHORIZED: Motor vehicle, rail freight, cargo vessel, cargo aircraft only, and passenger-carrying aircraft.
10. MODAL REQUIREMENTS: A current copy of this exemption must be carried aboard each cargo vessel, aircraft or motor vehicle used to transport packages covered by this exemption. The shipper must furnish a copy of this exemption to the air carrier before or at the time the shipment is tendered.
11. COMPLIANCE: Failure by a person to comply with any of the following may result in suspension or revocation of this exemption and penalties prescribed by the Federal hazardous materials transportation law, 49 U.S.C. 5101 et seq:
- o All terms and conditions prescribed in this exemption and the Hazardous Materials Regulations, 49 CFR Parts 171-180.
 - o Persons operating under the terms of this exemption must comply with the security plan requirement in Subpart I of Part 172 of the HMR, when applicable.
 - o Registration required by § 107.601 et seq., when applicable.

Each "Hazmat employee", as defined in § 171.8, who performs a function subject to this exemption must receive training on the requirements and conditions of this exemption in addition to the training required by §§ 172.700 through 172.704.

No person may use or apply this exemption, including display of its number, when this exemption has expired or is otherwise no longer in effect.

12. REPORTING REQUIREMENTS: The carrier is required to report any incident involving loss of packaging contents or packaging failure to the Associate Administrator for Hazardous Materials Safety (AAHMS) as soon as practicable. (Sections 171.15 and 171.16 apply to any activity undertaken under the authority of this exemption.) In addition, the holder(s) of this exemption must also inform the AAHMS, in writing, as soon as practicable of any incidents involving the package and shipments made under this exemption.

Issued in Washington, D.C.:



for Robert A. McGuire
Associate Administrator for
Hazardous Materials Safety

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(DATE)

Address all inquiries to: Associate Administrator for Hazardous Materials Safety, Research and Special Programs Administration, Department of Transportation, Washington, D.C. 20590.
Attention: DHM-31.

Copies of this exemption may be obtained by accessing the Hazardous Materials Safety Homepage at <http://hazmat.dot.gov/exemptions> Photo reproductions and legible reductions of this exemption are permitted. Any alteration of this exemption is prohibited.

PO: dl